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Seyfarth, Shaw, Fairweather and Geraldson

REPORT

D R A F T
Preliminary Exploration of TCE Release

The Lockformer Company Plant
Lisle, Illinois

STS Consultants Ltd

June 10, 1992

Ms. Jeryl Olson
Seyfarth, Shaw, Fairweather, and Geraldson
55 East Monroe Street
Chicago, Illinois 60603-5803

RE: Draft Report, Preliminary Exploration of TCE Release at The Lockformer Company Plant in Lisle, Illinois -- STS Project No. 26249-YH

Dear Ms. Olson:

STS Consultants, Ltd. (STS) has completed the preliminary site exploration for the above-referenced project. The purpose of this report is to present the results of the field exploration, sampling, and chemical analyses in the vicinity of an apparent trichloroethylene release. Our conclusions with respect to indications of environmental impairment are included.

This report is provided as a draft for your review and comments. The report reflects the results previously communicated to you in our telephone conversation. We will provide a final report on this phase of work upon receipt of your comments.

STS has appreciated this opportunity to be of service to you. We look forward to the opportunity of continuing to provide service to you and The Lockformer Company on this project. If there are any questions with regard to the information contained in this report, or if we may be of further service to you, please do not hesitate to contact us.

Respectfully,

STS CONSULTANTS, LTD.

Robert K [signature] /for
Eric R. Powley
Assistant Project Scientist

Steven T. Newlin [signature]
Steven T. Newlin
Environmental Geologist

Richard G. Berggreen [signature]
Richard G. Berggreen
Principal Geologist

encl.
6DEPT:9:dkl

STS Consultants Ltd.
Consulting Engineers

111 Pfingsten Road
Northbrook, Illinois 60062
708.272.6520/Fax 708.498.2721

Report

PROJECT

D R A F T

PRELIMINARY EXPLORATION OF TCE RELEASE

THE LOCKFORMER COMPANY PLANT
LISLE, ILLINOIS

CLIENT

SEYFARTH, SHAW, FAIRWEATHER AND GERALDSON
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5803

Project No.

26249-YH

Date

JUNE 10, 1992

STS Consultants Ltd.
Consulting Engineers
111 Pfingsten Road
Northbrook, Illinois 60062
708.272.6520/Fax 708.498.2721

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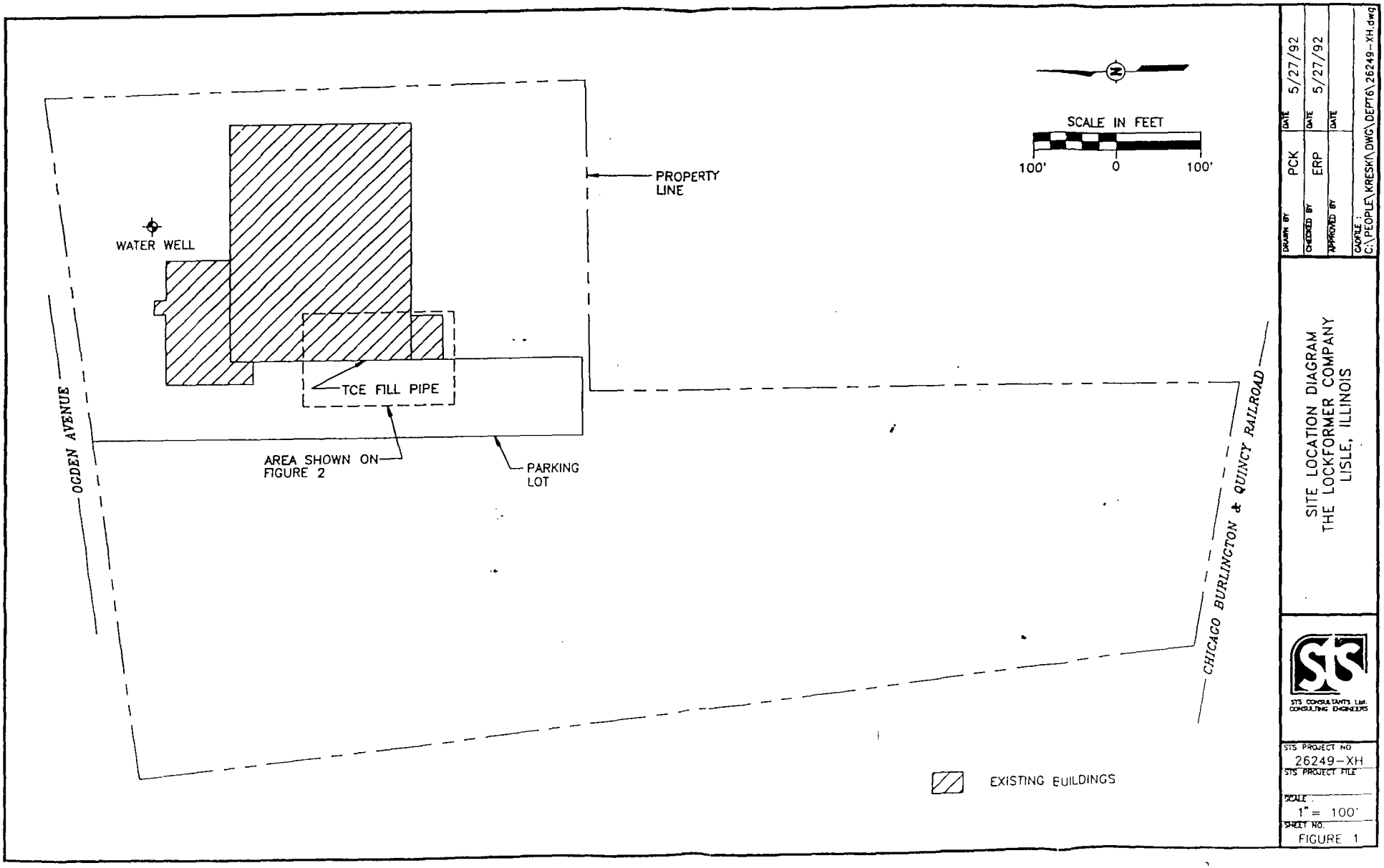
D R A F T
PRELIMINARY EXPLORATION OF TCE RELEASE AT THE LOCKFORMER COMPANY PLANT LISLE, ILLINOIS

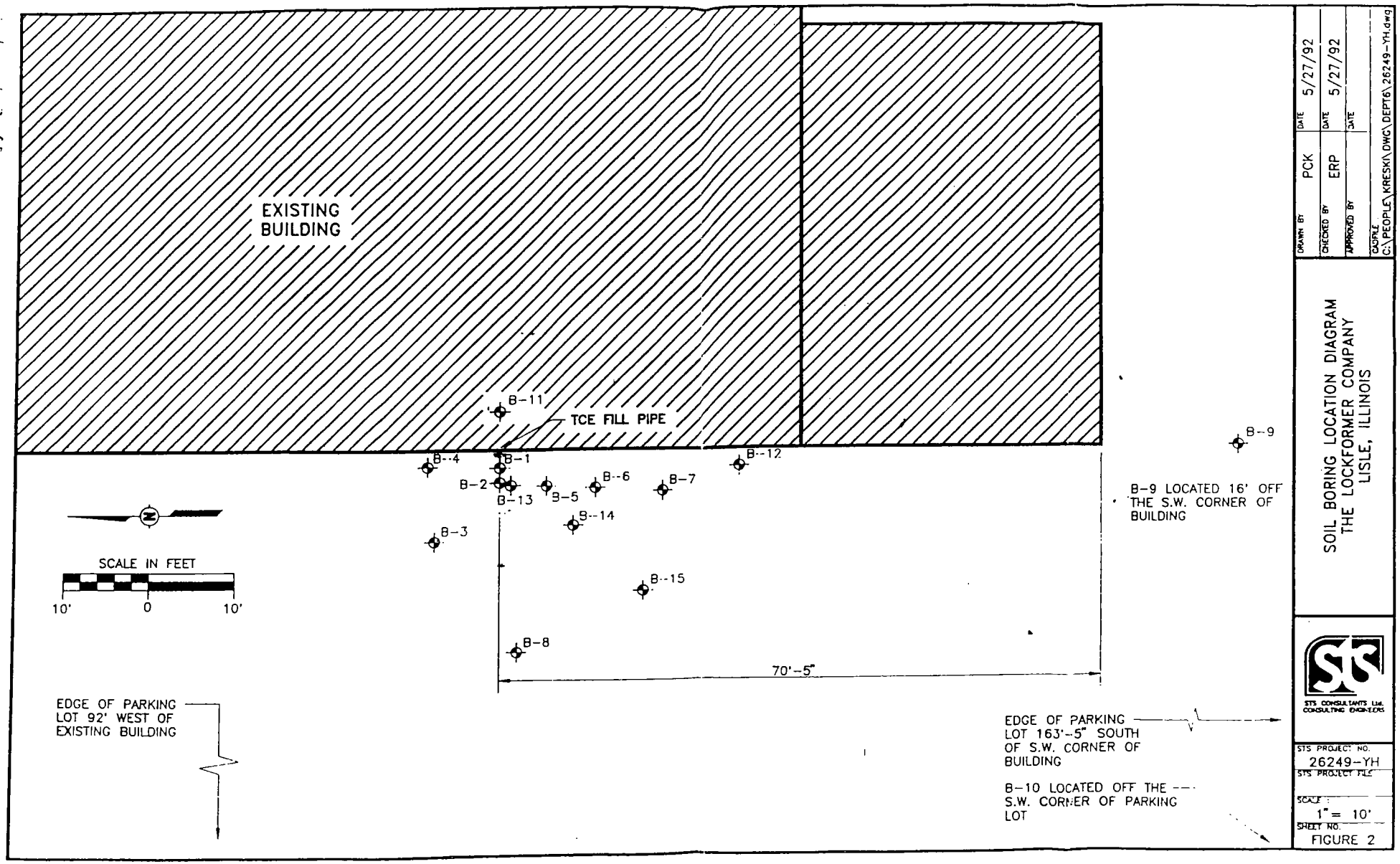
1.0 PROJECT OVERVIEW

1.1 Project Description

STS Consultants, Ltd. (STS) was requested by Seyfarth, Shaw, Fairweather, and Geraldson to conduct a preliminary soil exploration at The Lockformer Company Plant located at 771 East Ogden Avenue in Lisle, Illinois. The exploration was performed in response to an apparent trichloroethylene (TCE) release noted in the Fall of 1991. TCE impaired soil was encountered during repair work to a water line along the west side of the Lockformer Plant. The objective of the site exploration was to evaluate the extent of soil and/or groundwater impairment and observe conditions which may effect the migration of contaminants.

The Lockformer facility consists of a one-story metal fabricating plant and associated office space. The apparent release is located on the west side of the building near Lockformer's TCE storage tank refilling pipe. A site location diagram illustrating the location of the fill pipe is shown on Figure 1. The TCE storage tank is located on the roof of the facility with a refilling line extending down the west side of the building to approximately 5 feet above ground level. It is hypothesized that the release may have occurred as a series of small releases during disconnecting or connecting as part of the refilling of the tank.


SCALE IN FEET
100'
0
100'
PROPERTY LINE
WATER WELL
TCE FILL PIPE
AREA SHOWN ON FIGURE 2
PARKING LOT
OGDEN AVENUE
CHICAGO BURLINGTON & QUINCY RAILROAD
EXISTING BUILDINGS
DRAWN BY PCK DATE 5/27/92
CHECKED BY ERP DATE 5/27/92
APPROVED BY DATE
CADFILE : C:\PEOPLE\KRESK\DWG\DEPT6\26249-XH.dwg
SITE LOCATION DIAGRAM
THE LOCKFORMER COMPANY
LISLE, ILLINOIS
STS CONSULTANTS Ltd.
CONSULTING ENGINEERS
STS PROJECT NO
26249-XH
STS PROJECT FILE
SCALE :
1" = 100'
SHEET NO.
FIGURE 1



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APPROVED BY DATE
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SOIL BORING LOCATION DIAGRAM
THE LOCKFORMER COMPANY
LISLE, ILLINOIS

STS CONSULTANTS Ltd.
CONSULTING ENGINEERS

STS PROJECT NO.
26249-YH
STS PROJECT FILE
SCALE
1" = 10'
SHEET NO.
FIGURE 2

1.2 Scope of Services

Based on our understanding of the project objectives and in accordance with our proposal dated February 17. 1992. STS implemented a three-task project effort. Task 1 was a field exploration. consisting of vapor monitoring in soil borings to identify the apparent extent of TCE in subsurface soils and groundwater. Task 2 consisted of chemical analysis of selected soil and groundwater samples for potential environmental impairment. Task 3 included the evaluation of the data obtained and preparation of this report. This report is to present the findings of the subsurface exploration. soil and groundwater sampling. and chemical analyses.

1.3 Summary of Findings

Field observations consisting of photo-ionization detector (PID) vapor screening of soil samples during subsurface exploration indicated soil impairment in 11 of 15 hand auger borings performed. These observations indicate the presence of a volatile organic compound vapor plume which extends approximately 28 feet south and 24 feet west from the fill pipe location. Selected soil samples were submitted for analytical testing. Those analyses identified the presence of TCE in the soil at a maximum concentration of 680 mg/kg (parts per million). TCE appears to have migrated from the fill pipe south. west and possibly the east. Product does not appear to have migrated north of the fill pipe area. In those hand augers showing significantly elevated PID readings. the borings did not extend vertically to the bottom of the apparently impaired soil due to obstructions encountered during the borings.

A groundwater sample was obtained from the on-site water well to evaluate the possibility of TCE impacting the site's water source. No indication of TCE was found in the well water.

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2.0

2.0 EXPLORATION PROCEDURES

2.1 Task 1 -- Field Explorations

The field exploration consisted of performing 15 hand auger borings in the vicinity of the TCE fill pipe to evaluate the subsurface conditions with regard to apparent TCE contamination. The field exploration was not intended to evaluate the site-wide subsurface conditions. nor to assess the feasibility of remedial options for specific subsurface conditions detected in the course of the site exploration.

The hand auger borings, denoted B-1 through B-15, were advanced to the maximum depth obtainable given the subsurface conditions and physical contraints of hand auger boring. The borings were advanced manually using a bucket hand auger. The hand auger consisted of a 3-inch diameter stainless steel bucket extended to the desired depth with 3-foot extension rods. Samples were obtained at 1.0-foot intervals to the end of each boring. Borings extended to a maximum depth of 9 feet. Borings were terminated at shallower depths where an obstruction was encountered, either the footing of the building, or a cobble in the soil. To minimize the possibility of cross-contamination between sample intervals and between boring locations, all hand auger equipment was washed with Alconox soap and water, and rinsed with potable water between each sample interval and between boreholes.

The borings were performed directly beneath the TCE fill pipe and continued down slope to the south and to the west. One boring was performed to the east of the fill pipe through the floor of the building. Soil boring locations are noted on Figure 2.

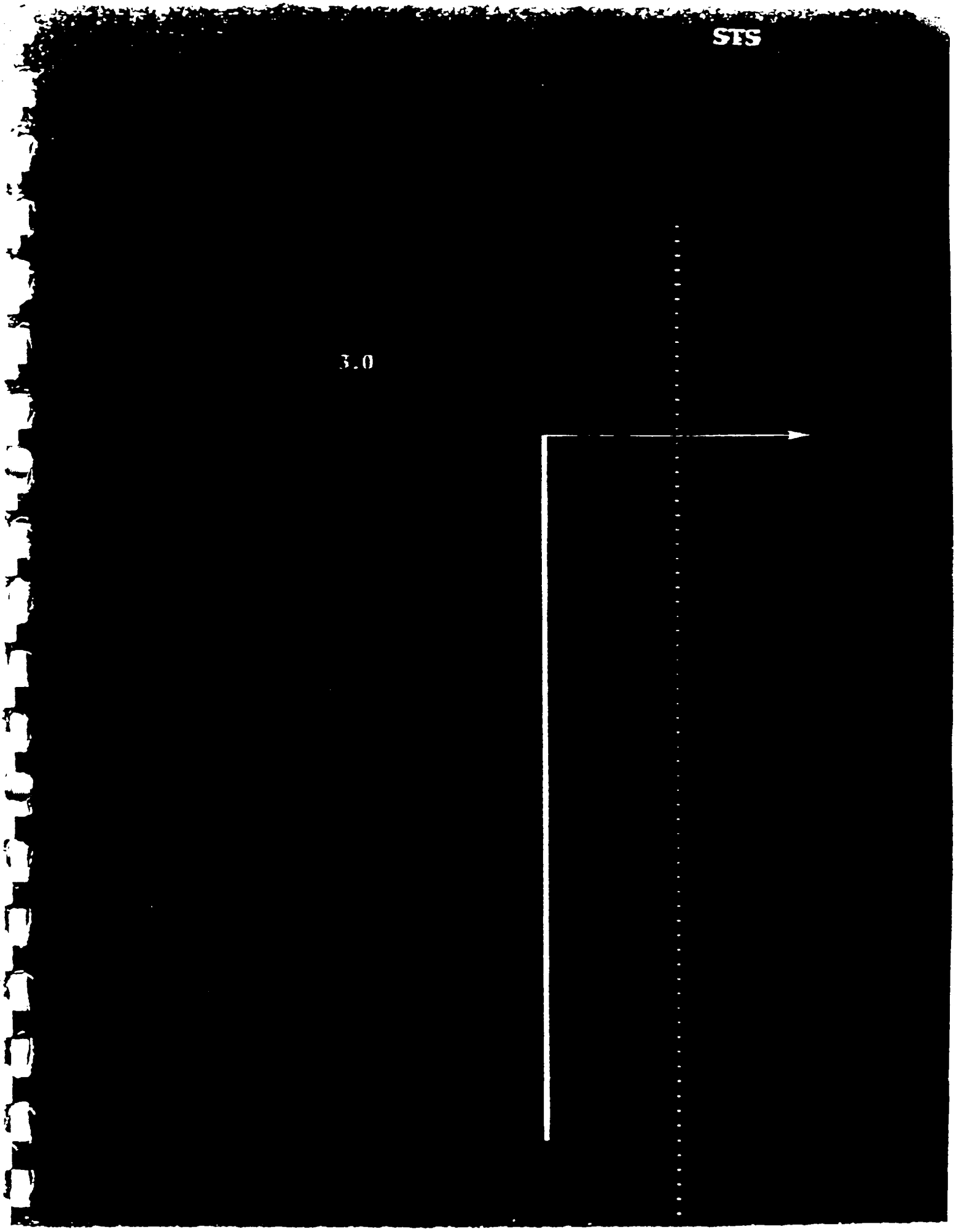
All soil samples were transferred from the hand auger bucket to clean field jars and capped in order to screen the headspace within the jar. After allowing the sample to equilibrate with the headspace in the jar, the jar was screened for volatile organic compound vapors using an HNU Systems. Inc. Model PI-101 photo-ionization detector (PID).

The PID is a trace gas analyzer, capable of measuring total volatile organic vapor concentrations for compounds with ionization potentials less than 10.2 electron volts (eV). TCE has an ionization potential of 9.45 eV and is readily detectable using the 10.2 eV PID.

In addition to the soil exploration, STS obtained a water sample from the on-site water supply well for analysis of TCE. The water sample was collected from the well head located north of the building. The well pump was allowed to run for approximately five minutes prior to the sample collection to ensure that any stagnant water in the well casing was flushed out.

2.2 Task 2 – Chemical Analyses of Soil and Groundwater Samples

One water and five soil samples were submitted under chain-of-custody control to a subcontract analytical laboratory. The soil samples were selected based on PID detections and visual observations during the April 7, 1992 exploration. The soil and water samples were analyzed by USEPA's SW-846 Method 8240 for the presence of volatile organics.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3.0 EXPLORATION RESULTS

3.1 Field Explorations

Borings B-1 through B-15 were located beneath the TCE fill pipe and extended to a maximum distance of 28 feet to the south and 24 feet west, except Borings B-9 and B-10. B-9 is located approximately 16 feet south of the southwest corner of the building. B-10 is located aproximately 5 feet west of the southwest corner of the parking lot. As a result of subsurface conditions the hand auger depths ranged from 4 feet to 9 feet. The soils consisted mainly of brown and grey silty clay fill with some sand and cobbles.

Elevated PID readings were recorded in borings located beneath the fill pipe and extending as far as approximately 28 feet south and 24 feet west of the fill pipe. The highest PID reading was 900 ppm recorded from a sample obtained from Boring B-13 located adjacent to the fill pipe. Only minor PID readings ranging from 0 to 4 parts per million (ppm) were recorded in Borings B-3 and B-4 performed upgradient of the fill pipe. No PID indications were noted in samples obtained from Borings B-9 and B-10 performed to the south and southwest, along the edge of the pavement. Table 1 summarizes the sample depths obtained at each boring location and PID readings that correspond to each sample throughout those depths.

During the collection of the well water sampling, no PID, visual or olfactory indications of TCE impairment were observed.

3.2 Chemical Analyses

Based on the PID readings and visual observations, five soil samples were selected for analysis of volatile organic compounds (VOCs). These samples were selected based on high to low ranging PID indications. Three of the submitted soil samples were obtained from Boring B-13 -- S-2 at a depth of 1.0 - 2.0 feet, S-3 at a depth of 2.0 -

Table 1

PID READINGS

Sample Depth (feet)	Location														
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15
0 - 1.0	20	15	0	0	0	0	0	0	0	0	---	0	73	40	0
1.0 - 2.0	170	80	0	0	210	10	18	3	0	0	---	0	900	195	8
2.0 - 3.0	---	300	3	1	600	50	65	20	0	0	---	4	800	---	12
3.0 - 4.0	480	800	2	4	625	40	120	7	0	0	0	10	800	115	35
4.0 - 5.0	630	E.O.B. @ 4.5'	0	E.O.B. @ 4.5'	E.O.B. @ 4.0'	E.O.B. @ 4.5'	E.O.B. @ 4.0'	2	0	0	25	E.O.B. @ 4.0'	680	75	22
5.0 - 6.0	700		E.O.B. @ 5.0'					0	0	0	224		400	30	E.O.B. @ 5.0'
6.0 - 7.0	E.O.B. @ 6.0'							0	0	E.O.B. @ 6.0'	400		E.O.B. @ 6.0'	E.O.B. @ 6.0'	
7.0 - 8.0								E.O.B. @ 7.0'	0		E.O.B. @ 7.0'				
8.0 - 9.0									0						
									E.O.B. @ 9.0'						

* Note PID readings in parts per million (ppm).
E.O.B. = End of boring.

3.0 feet, and S-4 at a depth of 3.0 - 4.0 feet. The remaining two soil samples submitted were from B-14 and B-15 at depths of 1.0 - 2.0 feet and 3.0 - 4.0 feet, respectively. In addition to the soil samples, the water sample obtained from the water well was submitted for VOC analysis. Copies of the analytical test results and chain-of-custody record are enclosed in the Appendix.

TCE was detected in each of the five soil samples submitted for chemical analysis. The analytical results indicate that the soils collected from B-13 range from 110 mg/kg to 680 mg/kg (ppm) TCE with the highest concentration in S-2 at a depth of 1.0 - 2.0 feet. The concentration of TCE in the soil samples collected from B-14 and B-15 indicate a level of 120 mg/kg and 21 mg/kg, respectively. The analytical data indicate that the TCE contamination diminishes as the borings step out laterally.

The sample analytical results also indicate detections of various other VOCs. These range as high as 20 ppm Tetrachloroethene in sample S-2 from Boring B-13. Tetrachloroethene, or perchloroethylene (Perc), may be present as a minor component in the TCE. The other VOC detections are likely trace contaminants within the industrial grade solvents or by-products of TCE and Perc degradation. Table 2 summarizes the laboratory analytical results.

No VOCs were detected above the laboratory's analytical detection limit in the groundwater sample collected from the site well. The groundwater aquifer at the depth of the on-site water well does not appear to have been impaired by TCE.

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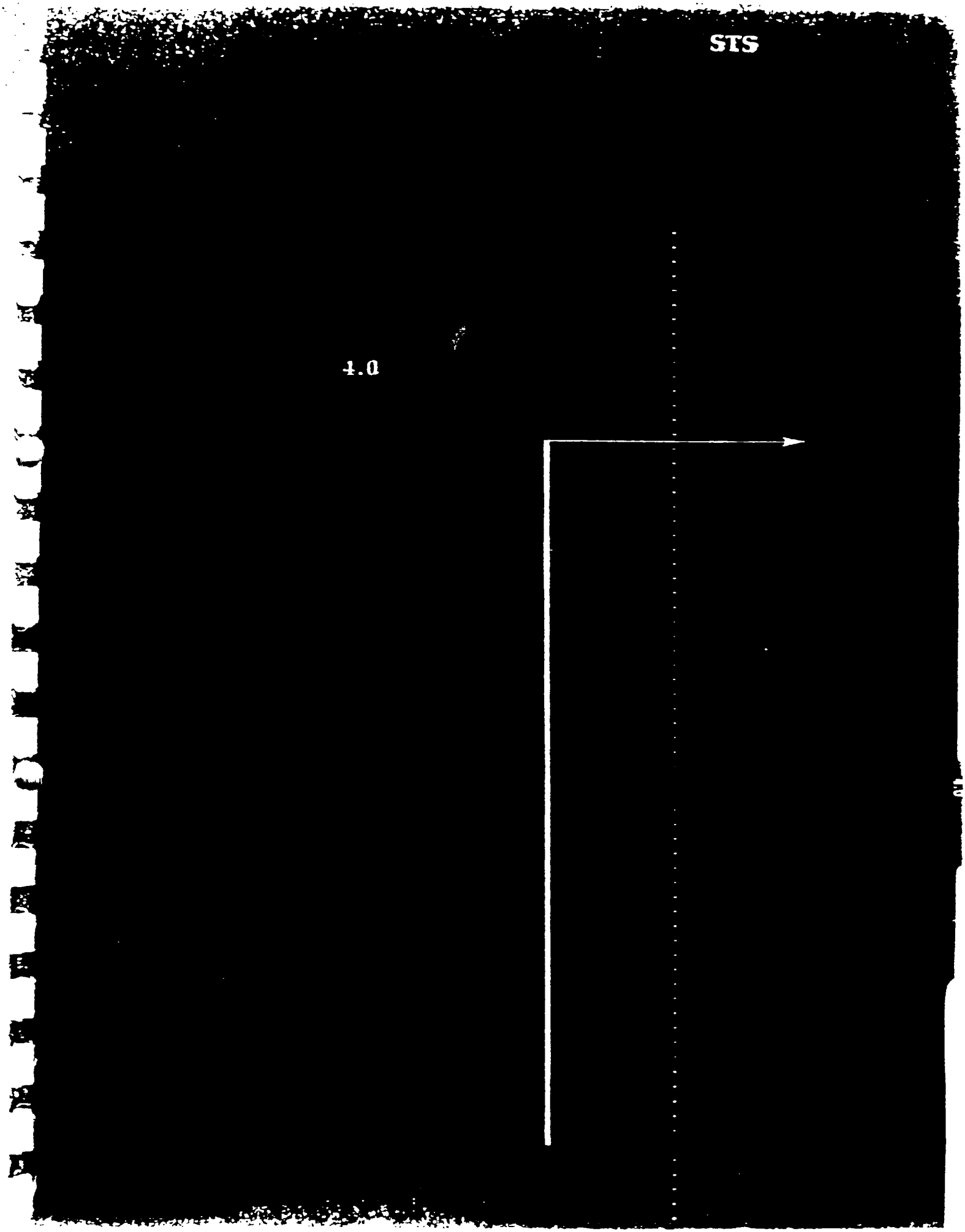
Table 2

LABORATORY ANALYTICAL RESULTS

Parameter	Method Detection Limit	B-13 S-2	B-13 S-3	B-13 S-4	B-14 S-2	B-15 S-4
Trichloroethene (TCE)	0.002	680	310	110	120	21
1,1-Dichloroethene	0.002	0.027	0.005	BDL	BDL	BDL
1,1,1-Trichloroethane	0.002	2.2	0.50	0.20	0.31	0.11
1,1,2-Trichloroethane	0.002	BDL	BDL	0.12	BDL	BDL
1,1,2,2-Tetrachloroethane	0.002	BDL	BDL	0.20	BDL	BDL
1,2-Dichloroethane	0.002	BDL	0.016	BDL	BDL	BDL
1,2,3-Trichloropropane	0.002	BDL	BDL	0.54	BDL	BDL
2-Chloroethyl vinyl ether	0.002	BDL	BDL	0.27	BDL	BDL
Benzene	0.002	0.013	BDL	BDL	BDL	BDL
Bromodichloromethane	0.002	BDL	0.018	BDL	BDL	BDL
Ethyl benzene	0.002	BDL	BDL	BDL	BDL	0.004
Toluene	0.002	0.10	0.041	0.15	0.073	0.017
Tetrachloroethene	0.002	20.	9.0	2.5	1.7	0.88
Tetrachloromethane	0.002	0.056	BDL	BDL	BDL	BDL
Xylenes	0.006	0.020	0.009	BDL	BDL	0.025

BDL = Below Detection Limit
NOTE: All results are reported in mg/kg (parts per million)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4.0 CONCLUSIONS

4.1 Analysis

The subsurface exploration results indicate TCE soil impairment in the vicinity of the fill pipe to the south and southwest. The TCE does not appear to have migrated to the north of the fill pipe. Exploration to the east was limited due to the presence of the building. However, indications of TCE were noted in soils beneath the building adjacent to the fill pipe.

The levels of TCE detected suggest some remediation may be required at the Lockformer facility. Although the limits of the impaired soil have not been established in all directions, given the indicated limits and an assumed depth of 8 feet, a potential volume of 600 to 1,200 cubic yards of soil may require remediation.

Additional exploration would be required to assess the feasibility of potential remediation options. The indications of other VOC contamination, in addition to the TCE, were not the focus of this exploration. That contamination, however, would also likely be remediated in the course of efforts to remediate the TCE impaired soils. STS would be pleased to assist in the exploration, evaluation and selection of remediation solutions.

No indication of TCE impairment within the well water was identified during the field observations or from the well water analysis.

4.2 General Qualifications

The conclusions and opinions presented in this report are based on the samples collected, conditions at the time of sampling, and the chemical analyses performed. Environmental conditions can change over time and variations may exist between sample locations.

The opinions presented are based on the current State and Federal regulations. No representation is made or intended relative to any future standards or interpretation of existing standards. This report presents STS' opinions and judgments, and no warranty is either expressed or implied.

QUALITY
ANALYTICAL
LABS, INC.

Job #: 12618
Date : 04/20/92

STS Consultants Ltd.
1869 Techny Road
Northbrook, IL 60062

ATTN: Eric Powley

Sampling Date: 04/07/92
Analyses Date: 04/10-20/92

Identification: Five samples taken by Eric Powley identified as:

PROJECT ID: #26249-YE

Results follow:

Sample ID: B-13, S-3

VOLATILES Method: SW-846 8240 (Modified to capillary)

Parameter	MDL mg/Kg	Analysis mg/Kg
1,1-Dichloroethane	0.002	BDL
1,1-Dichloroethene	0.002	0.005
1,1,1-Trichloroethane	0.002	0.50
1,1,2-Trichloroethane	0.002	BDL
1,1,2,2-Tetrachloroethane	0.002	BDL
1,2-Dichloroethane	0.002	0.016
1,2-Dichloropropane	0.002	BDL
1,2,3-Trichloropropane	0.002	BDL
1,4-Dichloro-2-butene	0.002	BDL
2-Butanone (MEK)	0.10	BDL
2-Chloroethyl vinyl ether	0.002	BDL
2-Hexanone	0.02	BDL
4-Methyl-2-pentanone(MIBK)	0.01	BDL
Acetone	0.15	BDL
Acrolein	0.002	BDL
Acrylonitrile	0.002	BDL
Benzene	0.002	BDL
Bromodichloromethane	0.002	0.018
Bromomethane	0.01	BDL
Carbon disulfide	0.002	BDL
Chlorobenzene	0.002	BDL
Chloroethane	0.01	BDL
Chloromethane	0.01	BDL
cis-1,3-Dichloropropene	0.002	BDL
Dibromochloroemethane	0.002	BDL
Dibromomethane	0.002	BDL
Dichlorodifluoromethane	0.002	BDL
Ethylbenzene	0.002	BDL
Iodomethane	0.002	BDL
Methylbenzene (Toluene)	0.002	0.041
Methylene chloride	0.002	BDL
Styrene	0.002	BDL
Tetrachloroethene	0.002	9.0
Tetrachloromethane	0.002	BDL
trans-1,2-Dichloroethene	0.002	BDL
trans-1,3-Dichloropropene	0.002	BDL
Tribromomethane (Bromoform)	0.002	BDL
Trichloroethene	0.002	310.
Trichlorofluoromethane	0.002	BDL
Trichloromethane (Chloroform)	0.002	BDL
Vinyl acetate	0.05	BDL
Vinyl chloride	0.01	BDL
Xylenes (Total)	0.006	0.009

Sample ID: B-13, S-4

VOLATILES Method: SW-846 8240 (Modified to capillary)

Parameter	MDL mg/Kg	Analysis mg/Kg
1,1-Dichloroethane	0.020	BDL
1,1-Dichloroethene	0.020	BDL
1,1,1-Trichloroethane	0.020	0.20
1,1,2-Trichloroethane	0.020	0.12
1,1,2,2-Tetrachloroethane	0.020	0.20
1,2-Dichloroethane	0.020	BDL
1,2-Dichloropropane	0.020	BDL
1,2,3-Trichloropropane	0.020	0.54
1,4-Dichloro-2-butene	0.020	BDL
2-Butanone (MEK)	1.0	BDL
2-Chloroethyl vinyl ether	0.020	0.27
2-Hexanone	0.20	BDL
4-Methyl-2-pentanone(MIBK)	0.10	BDL
Acetone	1.5	BDL
Acrolein	0.020	BDL
Acrylonitrile	0.020	BDL
Benzene	0.020	BDL
Bromodichloromethane	0.020	BDL
Bromomethane	0.10	BDL
Carbon disulfide	0.020	BDL
Chlorobenzene	0.020	BDL
Chloroethane	0.10	BDL
Chloromethane	0.10	BDL
cis-1,3-Dichloropropene	0.020	BDL
Dibromochloroemethane	0.020	BDL
Dibromomethane	0.020	BDL
Dichlorodifluoromethane	0.020	BDL
Ethylbenzene	0.020	BDL
Iodomethane	0.020	BDL
Methylbenzene (Toluene)	0.020	0.15
Methylene chloride	0.020	BDL
Styrene	0.020	BDL
Tetrachloroethene	0.020	2.5
Tetrachloromethane	0.020	BDL
trans-1,2-Dichloroethene	0.020	BDL
trans-1,3-Dichloropropene	0.020	BDL
Tribromomethane (Bromoform)	0.020	BDL
Trichloroethene	0.020	110.
Trichlorofluoromethane	0.020	BDL
Trichloromethane (Chloroform)	0.020	BDL
Vinyl acetate	0.50	BDL
Vinyl chloride	0.10	BDL
Xylenes (Total)	0.060	BDL

Sample ID: B-14, S-2

VOLATILES Method: SW-846 8240 (Modified to capillary)

Parameter	MDL mg/Kg	Analysis mg/Kg
1,1-Dichloroethane	0.025	BDL
1,1-Dichloroethene	0.025	BDL
1,1,1-Trichloroethane	0.025	0.31
1,1,2-Trichloroethane	0.025	BDL
1,1,2,2-Tetrachloroethane	0.025	BDL
1,2-Dichloroethane	0.025	BDL
1,2-Dichloropropane	0.025	BDL
1,2,3-Trichloropropane	0.025	BDL
1,4-Dichloro-2-butene	0.025	BDL
2-Butanone (MEK)	1.25	BDL
2-Chloroethyl vinyl ether	0.025	BDL
2-Hexanone	0.25	BDL
4-Methyl-2-pentanone(MIBK)	0.025	BDL
Acetone	1.9	BDL
Acrolein	0.025	BDL
Acrylonitrile	0.025	BDL
Benzene	0.025	BDL
Bromodichloromethane	0.025	BDL
Bromomethane	0.025	BDL
Carbon disulfide	0.025	BDL
Chlorobenzene	0.025	BDL
Chloroethane	0.025	BDL
Chloromethane	0.13	BDL
cis-1,3-Dichloropropene	0.025	BDL
Dibromochloroemethane	0.025	BDL
Dibromomethane	0.025	BDL
Dichlorodifluoromethane	0.025	BDL
Ethylbenzene	0.025	BDL
Iodomethane	0.025	BDL
Methylbenzene (Toluene)	0.025	0.073
Methylene chloride	0.025	BDL
Styrene	0.025	BDL
Tetrachloroethene	0.025	1.7
Tetrachloromethane	0.025	BDL
trans-1,2-Dichloroethene	0.025	BDL
trans-1,3-Dichloropropene	0.025	BDL
Tribromomethane (Bromoform)	0.025	BDL
Trichloroethene	0.025	120.
Trichlorofluoromethane	0.025	BDL
Trichloromethane (Chloroform)	0.025	BDL
Vinyl acetate	0.63	BDL
Vinyl chloride	0.025	BDL
Xylenes (Total)	0.075	BDL

Sample ID: B-15, S-4

VOLATILES Method: SW-846 8240 (Modified to capillary)

Parameter	MDL mg/Kg	Analysis mg/Kg
1,1-Dichloroethane	0.001	BDL
1,1-Dichloroethene	0.001	BDL
1,1,1-Trichloroethane	0.001	0.11
1,1,2-Trichloroethane	0.001	BDL
1,1,2,2-Tetrachloroethane	0.001	BDL
1,2-Dichloroethane	0.001	BDL
1,2-Dichloropropane	0.001	BDL
1,2,3-Trichloropropane	0.001	BDL
1,4-Dichloro-2-butene	0.001	BDL
2-Butanone (MEK)	0.050	BDL
2-Chloroethyl vinyl ether	0.001	BDL
2-Hexanone	0.010	BDL
4-Methyl-2-pentanone(MIBK)	0.005	BDL
Acetone	0.075	BDL
Acrolein	0.001	BDL
Acrylonitrile	0.001	BDL
Benzene	0.001	BDL
Bromodichloromethane	0.001	BDL
Bromomethane	0.005	BDL
Carbon disulfide	0.001	BDL
Chlorobenzene	0.001	BDL
Chloroethane	0.005	BDL
Chloromethane	0.005	BDL
cis-1,3-Dichloropropene	0.001	BDL
Dibromochloroemethane	0.001	BDL
Dibromomethane	0.001	BDL
Dichlorodifluoromethane	0.001	BDL
Ethylbenzene	0.001	0.004
Iodomethane	0.001	BDL
Methylbenzene (Toluene)	0.001	0.017
Methylene chloride	0.001	BDL
Styrene	0.001	BDL
Tetrachloroethene	0.001	0.88
Tetrachloromethane	0.001	BDL
trans-1,2-Dichloroethene	0.001	BDL
trans-1,3-Dichloropropene	0.001	BDL
Tribromomethane (Bromoform)	0.001	BDL
Trichloroethene	0.001	21.
Trichlorofluoromethane	0.001	BDL
Trichloromethane (Chloroform)	0.001	BDL
Vinyl acetate	0.025	BDL
Vinyl chloride	0.005	BDL
Xylenes (Total)	0.003	0.025

MDL = Method Detection Limit
BDL = Below Detection Limit

Respectfully submitted,

Nicholas Cuzzone
Lab Manager
Quality Analytical Labs, Inc.

C.O.C.# 12018

STS CHAIN OF CUSTODY RECORD

№ 14901 RECORD NO. ______ THROUGH ______

Contact Person: Eric R. Fowley
Phone No.: 272-6520
Project No.: 26249-YH PO No.:
STS Office: Northbrook

SPECIAL HANDLING REQUEST
☐ RUSH
☐ VERBAL
☐ OTHER

Laboratory: QAL
Contact Person: Jeff F.
Phone No.:
Results Due:

Sample I.D.	Date	Time	Grab	Composite	No. of Containers	Sample Type (Water, soil, air, sludge, etc.)	Preservation Y	Preservation N	Field Data PID/FID Ambient	Field Data PID/FID Sample	PH	Spec. Cond.	Analysis Request	Comments on Sample (Include Major Contaminants)
B-13, S-2	4-7		✓		1	Soil		✓		5? ppm			VOCs	Note Hot
B-13, S-3	4-7		✓		1	↓		✓		9? ppm			↓	Hits with
B-13, S-4	4-7		✓		1	↓		✓		60 ppm			↓	PID ~ 900 ppm.
B-14, S-2	4-7		✓		1	↓		✓		20 ppm			↓	
B-15, S-4	4-7		✓		1	↓		✓		21 ppm			↓	
														Due 4/16/92

Collected by: Eric R. Fowley	Date 4-7-92	Time		Delivery by: Eric R. Fowley	Date 4-9-92	Time	
Received by: [illegible]	Date 4-9-92	Time 1725		Relinquished by:	Date	Time	
Received by:	Date	Time		Relinquished by:	Date	Time	
Received by:	Date	Time		Relinquished by:	Date	Time	
Received for lab by: Adam Schumacher	Date 4/10/92	Time 8:00		Relinquished by:	Date	Time	

Laboratory Comments Only: Seals Intact Upon Receipt ☑ Yes ☐ No ☐ N/A

Final disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Green – Laboratory Yellow – As needed Pink – Transporter Goldenrod – STS Project File

Instruction to Laboratory: Forward completed original to STS with analytical results. Retain green copy.

QUALITY
ANALYTICAL
LABS, INC.

Job #: 13039 AMENDED
Date : 04/29/92

STS Consultants Ltd.
1869 Techny Road
Northbrook, IL 60062

ATTN: Steve Newlin

Sampling Date: 04/22/92
Analyses Date: 04/22-27/92

Identification: One sample taken by Robert Bryce identified as:

WATER WELL SAMPLE FROM LOCKFORMER
JOB #26249-YH

Results follow:

Sample ID: S-1

VOLATILES Method: SW-846 8240 (Modified to capillary)

Parameter	MDL mg/L	Analysis mg/L
1,1-Dichloroethane	0.001	BDL
1,1-Dichloroethene	0.001	BDL
1,1,1-Trichloroethane	0.001	BDL
1,1,2-Trichloroethane	0.001	BDL
1,1,2,2-Tetrachloroethane	0.001	BDL
1,2-Dichloroethane	0.001	BDL
1,2-Dichloropropane	0.001	BDL
1,2,3-Trichloropropane	0.001	BDL
1,4-Dichloro-2-butene	0.001	BDL
2-Butanone (MEK)	0.050	BDL
2-Chloroethyl vinyl ether	0.001	BDL
2-Hexanone	0.010	BDL
4-Methyl-2-pentanone(MIBK)	0.005	BDL
Acetone	0.075	BDL
Acrolein	0.001	BDL
Acrylonitrile	0.001	BDL
Benzene	0.001	BDL
Bromodichloromethane	0.001	BDL
Bromomethane	0.005	BDL
Carbon disulfide	0.001	BDL
Chlorobenzene	0.001	BDL
Chloroethane	0.005	BDL
Chloromethane	0.005	BDL
cis-1,3-Dichloropropene	0.001	BDL
Dibromochloroemethane	0.001	BDL
Dibromomethane	0.001	BDL
Dichlorodifluoromethane	0.001	BDL
Ethylbenzene	0.001	BDL
Iodomethane	0.001	BDL
Methylbenzene (Toluene)	0.001	BDL
Methylene chloride	0.001	BDL
Styrene	0.001	BDL
Tetrachloroethene	0.001	BDL
Tetrachloromethane	0.001	BDL
trans-1,2-Dichloroethene	0.001	BDL
trans-1,3-Dichloropropene	0.001	BDL
Tribromomethane (Bromoform)	0.001	BDL
Trichloroethene	0.001	BDL
Trichlorofluoromethane	0.001	BDL
Trichloromethane (Chloroform)	0.001	BDL
Vinyl acetate	0.025	BDL
Vinyl chloride	0.005	BDL
Xylenes (Total)	0.003	BDL

MDL = Method Detection Limit
BDL = Below Detection Limit

Respectfully submitted,

Nicholas Cuzzone
Lab Manager
Quality Analytical Labs, Inc.